CLAIMS LISTING

1.(currently amended) A binderless storage phosphor panel or screen comprising a vacuum deposited phosphor layer on an exposure side(1) of CsBr:Eu, wherein amounts of Eu-dopant are in the range of from 100 up to 400 p.p.m. versus CsBr, on a support (2) and wherein said support includes a layer of amorphous carbon (23) opposite to said exposure side.

2.(original) A binderless storage phosphor panel or screen comprising a vacuum deposited phosphor layer (1) of CsBr:Eu, wherein amounts of Eu-dopant are in the range of from 100 up to 200 p.p.m. versus CsBr, on a support (2) and wherein said support includes a layer of amorphous carbon (23).

3.(original) A binderless phosphor panel or screen according to claim 1, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

4.(original) A binderless phosphor panel or screen according to claim 2, wherein said support further includes a

polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

5.(original) A binderless phosphor panel or screen according to claim 1, wherein said support further includes a reflective auxiliary layer (22).

6.(original) A binderless phosphor panel or screen according to claim 2, wherein said support further includes a reflective auxiliary layer (22).

7.(original) A binderless phosphor panel or screen according to claim 3, wherein said support further includes a reflective auxiliary layer (22).

8.(original) A binderless phosphor panel or screen according to claim 4, wherein said support further includes a reflective auxiliary layer (22).

9.(original) A binderless phosphor panel or screen according to claim 5, wherein said reflective auxiliary layer (22) is an aluminum layer with a thickness between 0.2 μm and 200 μm.

10.(original) A binderless phosphor panel or screen according to claim 6, wherein said reflective auxiliary layer (22) is an aluminum layer with a thickness between 0.2 μm and 200 μm.

11.(original) A binderless phosphor panel or screen according to claim 7, wherein said reflective auxiliary layer (22) is an aluminum layer with a thickness between 0.2 μm and 200 μm.

12.(original) A binderless phosphor panel or screen according to claim 8, wherein said reflective auxiliary layer (22) is an aluminum layer with a thickness between 0.2 μm and 200 μm.

13.(original) A binderless phosphor panel or screen according to claim 5, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

14.(original) A binderless phosphor panel or screen according to claim 6, wherein said support further includes a

protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

15.(original) A binderless phosphor panel or screen according to claim 7, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

16.(original) A binderless phosphor panel or screen according to claim 8, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

17.(original) A binderless phosphor panel or screen according to claim 9, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

18.(original) A binderless phosphor panel or screen according to claim 10, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

19.(original) A binderless phosphor panel or screen according to claim 11, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

20.(original) A binderless phosphor panel or screen according to claim 12, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

21.(original) A binderless phosphor panel or screen according to claim 13, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

22.(original) A binderless phosphor panel or screen according to claim 14, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

23.(original) A binderless phosphor panel or screen according to claim 15, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

24.(original) A binderless phosphor panel or screen according to claim 16, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

25.(original) A binderless phosphor panel or screen according to claim 17, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

26.(original) A binderless phosphor panel or screen according to claim 18, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

27.(original) A binderless phosphor panel or screen according to claim 19, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

28.(original) A binderless phosphor panel or screen according to claim 20, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

29.(original) A method for producing a binderless storage phosphor panel comprising the steps of :

- providing an amorphous carbon film,
- vacuum depositing a storage phosphor layer of CsBr:Eu, wherein amounts of Eu-dopant are in the range of from 100 up to 400 p.p.m. versus CsBr, on said amorphous carbon film and, optionally,
- laminating method a polymeric film on the side of the amorphous carbon film not covered by said phosphor.

30.(original) A method for producing a binderless storage phosphor panel comprising the steps of :

- providing an amorphous carbon film,
- vacuum depositing a storage phosphor layer of CsBr:Eu, wherein amounts of Eu-dopant are in the range of from 100 up to 200 p.p.m. versus CsBr, on said amorphous carbon film and, optionally,
- laminating method a polymeric film on the side of the amorphous carbon film not covered by said phosphor.

31.(original) A method according to claim 29, wherein before said step of vacuum depositing a storage phosphor layer on said amorphous carbon film a step of applying a specularly reflecting layer on said amorphous carbon film is included.

32.(original) A method according to claim 30, wherein before said step of vacuum depositing a storage phosphor layer on said amorphous carbon film a step of applying a specularly reflecting layer on said amorphous carbon film is included.

33.(currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on

~~Use in mammography of~~ a screen or panel according to claim 1.

34. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 2.

35. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 3.

36. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 4.

37. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and

capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 5.

38. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 6.

39. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 7.

40. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 8.

41.(currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 9.

42.(currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 10.

43.(currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 11.

44.(currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 12.

45. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 13.

46. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 14.

47. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 15.

48. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 16.

49. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 17.

50. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 18.

51. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 19.

52. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 20.

53. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 21.

54. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 22.

55. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 23.

56. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 24.

57. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 25.

58. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 26.

59. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 27.

60. (currently amended) A method of obtaining a mammographic image comprising exposing an object to x-radiation and capturing said x-radiation passing through said object on ~~Use in mammography of~~ a screen or panel according to claim 28.

61.(new) A method for exposing an object to X-rays comprising the steps of:

- providing an X-ray machine including an X-ray tube equipped for emitting X-rays with an energy lower than or equal to 70 keV and a phototimer coupled to said X-ray tube for switching said tube on and off in accordance with an X-ray dose in the range from 0.75 up to 0.85 mR reaching said phototimer,
- placing an object between said X-ray tube and said phototimer,
- placing a cassette with a binderless storage phosphor panel or screen between said object and said phototimer and
- activating said X-ray tube for exposing said object, said cassette and said phototimer until said phototimer switches said X-ray tube off, wherein said binderless storage phosphor panel comprises on a support (2) having a layer of amorphous carbon (23) with a thickness between 500 μm and 2000 μm, and a vacuum deposited phosphor layer (1) having a needle shaped CsBr:Eu phosphor, wherein amounts of Eu are in the range of from 100 up to 400 p.p.m. versus CsBr.

62.(new) Method according to claim 61, wherein amounts of Eu are in the range of from 100 up to 200 p.p.m. versus CsBr.

63.(new) Method according to claim 61, wherein amounts of Eu are in the range from 150 to 180 p.p.m. versus CsBr.

64.(new) Method according to claim 61, wherein said support further includes a reflective auxiliary aluminum layer (22) with a thickness between 0.2 μm and 200 μm.

65.(new) Method according to claim 62, wherein said support further includes a reflective auxiliary aluminum layer (22) with a thickness between 0.2 μm and 200 μm.

66.(new) Method according to claim 63, wherein said support further includes a reflective auxiliary aluminum layer (22) with a thickness between 0.2 μm and 200 μm.

67.(new) Method according to claim 61, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

68.(new) Method according to claim 62, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

69.(new) Method according to claim 63, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

70.(new) Method according to claim 64, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

71.(new) Method according to claim 65, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

72.(new) Method according to claim 66, wherein said support further includes a protective auxiliary layer (21) between said reflective auxiliary layer and said phosphor layer.

73.(new) Method according to claim 67, wherein said protective auxiliary layer (21) is a layer of parylene wherein said

parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

74.(new) Method according to claim 68, wherein said protective auxiliary layer (21) is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

75.(new) Method according to claim 69, wherein said protective auxiliary layer (21) is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

76.(new) Method according to claim 70, wherein said protective auxiliary layer (21) is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

77.(new) Method according to claim 71, wherein said protective auxiliary layer (21) is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

78.(new) Method according to claim 72, wherein said protective auxiliary layer (21) is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

79.(new) Method according to claim 61, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

80.(new) Method according to claim 62, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

81.(new) Method according to claim 63, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

82.(new) Method according to claim 64, wherein said support further includes a polymeric auxiliary layer (24) farther

away from said phosphor layer than said layer of amorphous carbon.

83.(new) Method according to claim 65, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

84.(new) Method according to claim 66, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

85.(new) Method according to claim 67, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

86.(new) Method according to claim 68, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

87.(new) Method according to claim 69, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

88.(new) Method according to claim 70, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

89.(new) Method according to claim 71, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

90.(new) Method according to claim 72, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

91.(new) Method according to claim 73, wherein said support further includes a polymeric auxiliary layer (24) farther

away from said phosphor layer than said layer of amorphous carbon.

92.(new) Method according to claim 74, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

93.(new) Method according to claim 75, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

94.(new) Method according to claim 76, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

95.(new) Method according to claim 77, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

96.(new) Method according to claim 78, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

97.(new) Method according to claim 61, wherein said method is a mammographic application method.